

PATENT



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

77615-10
64308C

In re Application of:

Joseph E. Coury, et al.

Serial No. 09/691,713

Confirmation No. 4980

Filed: 18 October 2000

Title: Personal Gas Supply Delivery System

Examiner: Patel, Mital

Art Unit 3761

Docket: 1161

APPEAL BRIEF

Mail Stop Appeal Brief- Patents

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Dear Sir:

Please enter the following appeal brief in response to the Final Official Action of 27 November 2002. Reversal of all rejections is sought. The brief is submitted in triplicate.

REAL PARTY IN INTEREST

The real party(s) in interest are Pharmed Corporation and/or Oxygen Lifeline, LLC.

RELATED APPEALS AND INTERFERENCES

There are no related appeals and interferences to the appealed case.

STATUS OF AMENDMENT

There has been no amendment to the claims after the Final Rejection. Claims 21 through 29 inclusive remain pending but are presented in this appeal.

SUMMARY OF INVENTION

The present invention deals with an uncomplicated system for providing a gas such as oxygen to a person in need of such gas. The intended use area of the present

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invention is in a home use or portable oxygen delivery systems. Often the user of the oxygen is alone or not attended by a professional such as in a hospital.

It is desirable to humidify oxygen supplied to a user. The humidification of the oxygen is typically accomplished with a vessel containing water through which the oxygen is bubbled. The moist oxygen is then supplied to the user through a nasal cannula to the user.

The use of a vessel presents a significant possibility for the loss of the entire supply of oxygen. Typically, a vessel used to moisturize the oxygen will have a plastic screw top leading to the potential for the vessel to be damaged at the threads through repeated usage. Once damaged the threaded area of the vessel may leak oxygen needed by the user.

Portable oxygen delivery systems also use a thin hose to deliver the oxygen from a tank or oxygen separator to the user. The hose may become crimped or cut at any point thus depriving the user of needed oxygen. As the user of the oxygen is already of diminished capacity (requiring the use of supplemental oxygen) the user must immediately be informed if the oxygen flow is interrupted.

The present invention per independent claims 1 and 11 provides an alarm in direct proximity to the user of the oxygen to permit the user to take immediate action upon interruption of the oxygen flow. Claim 11 provides a nasal cannula to the subject desiring to receive the effluent gas. The invention per independent claim 21 claims a personal gas supply delivery alarm system employing a nasal cannula having a battery powered gas flow alarm.

ISSUES

Are claims 1, 3, 4, 5, 6, and 7 novel over Bird United States Patent 5,165,398 (hereinafter the Bird patent)?

Are claims 8 through 11 inclusive, and claims 13 through 20 inclusive obvious

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from the combination of the Bird patent with Connell United States Patent 6,098,617
(hereinafter the Connell patent)?

GROUPING OF CLAIMS

Claims 1, 3, 4, 5, 6, 7, 8, 9, 10, 11, 14, 18, 19, and 20 are separately argued. The submission of the claims in this appeal is for the convenience of the Board and in no manner constitutes a waiver or admission that the remaining claims are not separately patentable. As none of the claims are rejected for being obvious solely by the Bird patent no discussion of such a rejection is taken to be proper.

ARGUMENTS

The Bird patent Novelty Rejection

The Examiner has rejected claim 1 based on the Bird patent as lacking novelty.

A difference between the Bird patent and claim 1 of the present invention is that the second conduit has a length such that the gas flow alarm, when in use by a person desiring to be a recipient of an uninterrupted flow of the medical gas (effluent gas), is proximate to the recipient of the effluent gas. No such teaching is found in the Bird patent. The claimed device to be useful in a home or other setting must permit the subject receiving the gas to be alerted that the gas flow has been interrupted. Alerting of the recipient of the gas cannot be done unless the intended recipient is close enough to the alarm to receive the signal. In the Bird patent it is wholly unimportant that the intended recipient is near the alarm as the recipient in the Bird patent is on a ventilator.

Thus, locating the alarm the device proximate to the region where the gas recipient may act on the alarm is novel over the Bird patent which does not specify that the device must be so constructed.

Furthermore, a ventilator is defined in the Bird patent at column 1, lines 7 through 10 as being a dynamic system for forcing gas into a patient's lungs by an

endotracheal tube (as admitted by the Examiner). Claim 1 requires that the delivery of the gas be by a nasal cannula. The system of claim 1 is a passive gas delivery system as the gas merely flows through the cannula but is not dynamically introduced into the recipient. There is no teaching of a nasal cannula in the Bird patent. Thus, the nasal cannula recited in claim 1 provides novelty of the appellant's claims 1, 3, 4, 5, 6, and 7 over the Bird patent.

The Bird patent in view of the Connell patent Obviousness Rejection

The Connell patent teaches a device having a single channel, tubular member, preferably having an arcuate shape, which is adapted for insertion into a patient's pharynx. Connell patent column 3, lines 20-25. The Examiner cites the Connell patent for nasal cannula allowing the patient to achieve maximum oxygenation. The Connell patent teaches states that the need for a split nasal cannula is *totally obviated* by his invention. Connell patent column 5, lines 10-17.

Claim 8 and 18 (depending from claims 1 and 11 respectively) require a personal gas supply delivery system wherein the gas flow alarm has an anterior surface including an alarm reset or test feature located substantially flush with or below the said anterior surface. The gas flow alarm when activated will provide a continuous signal until the alarm and the alarm must be reset such as to avoid depletion of a battery power source. The alarm system preferably includes a reset and on-off switch that is recessed sufficiently to prevent accidental disabling of the alarm system. Both the endotracheal patient of the Bird patent and the recipient of the gas in the present invention could, however, activate a misplaced test alarm (one which is not flush). The endotracheal patient of the Bird patent is in no condition to reset an alarm much less to act on an alarm. The intended recipient of the gas in the present invention is capable of acting on an alarmed condition and resetting the alarm. No such teaching exists in the Bird patent or the Connell patent of such an alarm reset or test feature located

substantially flush with or below the said anterior surface of the device and thus the combination of these references cannot render claim 8 obvious.

Claims 9 and 10 (as well as claims 19 and 20 depending from claim 11) require capability in the system of notifying a *second* person other than the recipient of the gas that the alarm has alerted. Where is the teaching of in the Bird patent or the Connell patent of any means to alert a *second* person in addition to the recipient of the gas? There is no such teaching and thus the rejection of claims 9, 10, 19, and 20 should be removed.

Independent claim 11 recites the language of claim 1 and in addition provides that the second conduit is unitary and connects with a binary nasal cannula. The Bird patent never discusses using a nasal cannula and further provides that an endotracheal tube should be employed. The Connell patent, *supra*, teaches that the need for a split nasal cannula is totally obviated by his invention. There is no individual or combined teaching of the Bird and the Connell patents which provides any motivation to obtain the system of claim 11.

As to claim 14 the appellant cannot locate in the Bird patent a teaching that a gas flow alarm is set to alert a subject receiving the effluent gas by any means. Nor is such a teaching found in the Connell patent. Therefore, it is believed that claim 14 is not obvious from the Bird patent. Thus, the rejection of claim 14 over the Bird patent should be removed and such as requested.

C O N C L U S I O N S

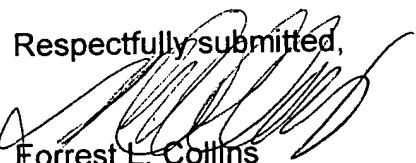
It is requested that the Board reverse all of the outstanding rejections in the above-entitled application. Should the Board have any questions, such may be directed to the number given below.

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I certify that this correspondence is being deposited with the United States postal service as first class mail in an envelope addressed to the Mail Stop Appeal Brief- Patents Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450 on 27 May 2003 and that my signature is also as of this date.

Respectfully submitted,


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APPENDIX CLAIMS ON APPEAL

1. A personal gas supply delivery system comprising:
 - a moisturizing vessel, for when in use, having the capability to contain a liquid to provide a source of moisture to increase the amount of moisture in a gas passing through the liquid,
 - said moisturizing vessel having a first opening for receiving an influent gas,
 - said moisturizing vessel having a second opening for an effluent gas,
 - a first conduit connected with said second opening, said first conduit for when in use, for receiving the effluent gas,
 - a gas flow alarm connected with said first conduit, and
 - a second conduit connected with said gas flow alarm, said second conduit in fluid communication with said first conduit,
 - said gas flow alarm for determining the instantaneous pressure or flow volume of the influent gas and the effluent gas;
 - said second conduit has a length such that the gas flow alarm, when in use by a recipient of the effluent gas, is proximate to the recipient of the effluent gas.
2. Cancelled without prejudice by response of 19 September 2002.
3. The personal gas supply delivery system according to claim 1 wherein the gas flow alarm is set to alert a subject desiring to receive the effluent gas when the pressure of the influent gas and the effluent gas has met at least one predetermined setting.
4. The personal gas supply delivery system according to claim 1 wherein the gas flow alarm is set to alert the recipient of the effluent gas by at least one of an audible signal, a visual signal, and a vibratory signal.
5. The personal gas supply delivery system according to claim 1 wherein the gas

flow alarm is set to alert a subject desiring to receive the effluent gas when the pressure of the influent gas and the effluent gas has met at least one predetermined setting and the alerting of the subject is by visible light.

6. The personal gas supply delivery system according to claim 1 wherein the gas flow alarm is set to alert a subject desiring to receive the effluent gas when the pressure of the influent gas and the effluent gas has met at least one predetermined setting and the alerting of the subject is audible.

7. The personal gas supply delivery system according to claim 1 further comprising a reset or test feature.

8. The personal gas supply delivery system according to claim 7 wherein the gas flow alarm has an anterior surface including an alarm reset or test feature located substantially flush with or below the said anterior surface.

9. The personal gas supply delivery system according to claim 1 wherein the gas flow alarm is set to alert a second person by means of a transmitter and a receiver that the pressure or volume per unit of time of the influent gas and the effluent gas has met at least one predetermined setting.

10. The personal gas supply delivery system according to claim 9 wherein the second person is alerted by a radio signal.

11. A personal gas supply delivery system comprising:

 a moisturizing vessel, for when in use, having the capability to contain a liquid to provide a source of moisture to increase the amount of moisture in a gas passing through the liquid,

 said moisturizing vessel having a first opening for receiving an influent gas,

 said moisturizing vessel having a second opening for an effluent gas, a first conduit connected with said second opening, said first conduit for when in use, for receiving the effluent gas,

a gas flow alarm connected with said first conduit, and
 a second conduit connected with said gas flow alarm, said second conduit
 in fluid communication with said first conduit,
 said second conduit is unitary and connecting with a binary nasal
 cannula;
 said gas flow alarm for determining an instantaneous difference in the
 pressure or volume of the influent gas per unit of time and the volume of the
 effluent gas per unit of time.

12. Cancelled without prejudice.
13. The personal gas supply delivery system according to claim 11 wherein the gas flow alarm is set to alert a subject desiring to receive the effluent gas when an instantaneous difference in the volume of the influent gas per unit of time and the volume of the effluent gas per unit of time has met at least one predetermined setting.
14. The personal gas supply delivery system according to claim 11 wherein the gas flow alarm is set to alert the recipient of the effluent gas by at least one of an audible signal, a visual signal, and a vibratory signal.
15. The personal gas supply delivery system according to claim 11 wherein the gas flow alarm is set to alert a subject desiring to receive the effluent gas when the volume of the influent gas and the effluent gas has met at least one predetermined setting and the alerting of the subject is by visible light.
16. The personal gas supply delivery system according to claim 11 wherein the gas flow alarm is set to alert a subject desiring to receive the effluent gas when the volume of the influent gas and the effluent gas has met at least one predetermined setting and the alerting of the subject is audible.
17. The personal gas supply delivery system according to claim 1 further comprising a reset or test feature.
18. The personal gas supply delivery system according to claim 11 wherein the gas

flow alarm has an anterior surface including an alarm reset or test feature located substantially flush with said anterior surface.

19. The personal gas supply delivery system according to claim 18 wherein the gas flow alarm is set to alert a second person by means of a transmitter and a receiver that the pressure or the volume per unit of time of the influent gas and the effluent gas has met at least one predetermined setting.

20. The personal gas supply delivery system according to claim 19 wherein the second person is alerted by the receiver.